

Dermestes Erichsoni (Ganglbauer, 1903) (Coleoptera: Dermestidae) – Rare beetles of the South of the Russia

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ABSTRACT

Dermestes erichsoni Ganglbauer, 1903 – a rare forest species. Low population density *D. erichsoni* can be explained by the peculiarities of its biology. To date, not much is known of works devoted to the biology of this species (1-9). In view of these circumstances, our objective was to study the biology and ecology: population, habitat, relations *D. erichsoni*.

Keywords: carpet beetles, Dermestidae, *Dermestes erichsoni*, Red Book.

INTRODUCTION

We used private collections and research of the author (1995-2014), which were held in the Stavropol and Krasnodar Territories, Rostov Region, Republic of Kalmykia, Karachaevo-Cherkessia. A favorite object of attack of this species - the gypsy moth (in the states of the Caucasus, he even harmed sericulture in 1950-70-ies.) [2]. Ganglbauer, 1903 points to find it in Silesia (Germany) in the spring of anthills, and in nests yellowtail.

Status. 2 "vulnerability" - 2, SW. Locally common, stenobiontic, small species found in the zone of intensive recreation. The Red Book of Stavropol Territory categorized II - rare species [3].

Category of threat of the global population in the IUCN Red List
According to the criteria of the IUCN Red List

The regional population is classified as "Vulnerable» - Vulnerable, VU B2ab (ii, iii) S.V. Pushkin.

Mean body size of adults - 6,1-7,8 mm. (fig.1). The abdomen is covered with orange or brownish hairs. Elytra with marble pattern of black and off-white hairs. [1] Body oval. The antennae are attached to the eyes at the edge of the forehead. The number of segments is 11. Most sensillae localized to the distal 4 antennal segment, making their surface looks matt. These segments differ in their shape, and together form a more or less clearly mace. Mouth parts dermestoid type trapezoidal pronotum. In *Dermestes erichsoni* preserved jugular vein and the first traces of the three branches of the medial veins. Armament consists of drumsticks corolla apical spurs and bristles, assembled in longitudinal rows of spines. Paws 5- segmented; the maximum value reaches the last segment, and the first barely noticeable. The ovipositor is long established 9 abdominal segments and a group of sclerites carrying 2 grifelka. Sexual dimorphism in males manifested in the highly developed antennae mace, and in the development of abdominal glands.

DISTRIBUTION

Global area includes central and southern Europe, the Caucasus [1,5]. In the Stavropol region is found in the region Caucasian Mineral Waters on the Stavropol height of Strizhament [3]. In the Krasnodar Territory is found near Erika Angelynskaya Krasnoarmeysky district, village Vishniac Dinnskogo region and Adygea Maikop, near [7]. Habitats - the edge of the forest, rarely observed near the forest.

Features of biology and ecology

This rare species growing in egg-laying - "nests" of Lepidoptera. The larvae feed on the eggs and larvae of many species of Lepidoptera. Imago active from May to August. The female lays about 50 eggs per season. Eggs have the shape of more or less elongated ovoid's. The length ranges from 0.01 to 3.55 mm, width - from 0.009 to 1.1 mm [7]. Shell eggs are transparent, so the color is determined by the color content. In the early stages of oogenesis they are milky white, then yellow, and finally through the development of a skin visible sclerotized parts of the embryo. Dolly free (pupa libera). The length of 1,3-35 mm, width of 0.5-10 mm. All cuticle, except for small areas and on tergidah urogomfah not sclerotized. Its surface is covered with simple hairs. [1] In many ways, the distribution and population size is determined by the presence of the food base (first and unpaired silkworm). A favorite object of attack - gypsy moth (in the states of the Caucasus, he even harm sericulture) [2]. In the literature [6] indicates its presence in Silesia (Germany) in the spring of anthills, and in nests yellowtail. The larvae are very voracious, active search for food in the passages ksilobiontov [4].

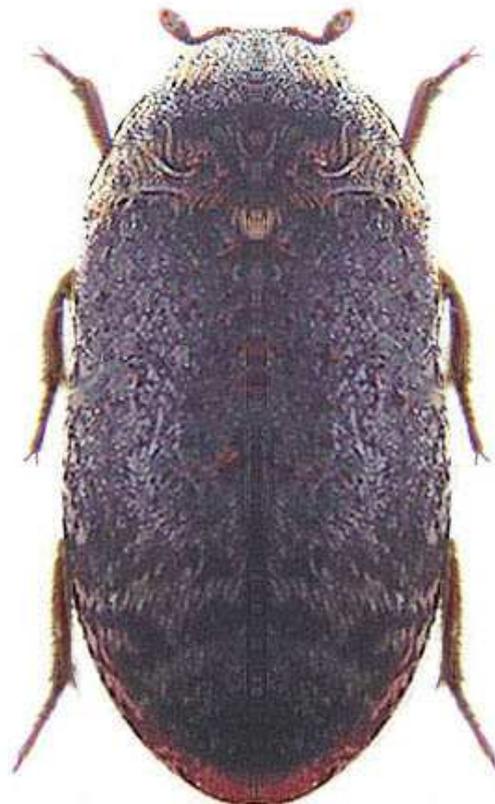
In the initial stages of studying the distribution of species in the North Caucasus region, and its biology, it became clear that the species is rare. All this helped make *Dermestes erichsoni* in the list of rare species of Stavropol Territory. Who said that although the form is not globally rare in Russia, it is necessary to protect the territory of the Stavropol Territory. Species of went with category III in the Red Book of the Stavropol Territory, Adygea, Krasnodar [3-7].

Table 1 Phenology *D. erichsoni* south of the Russia *

months of the year											
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
(+)	(+)	(+)	(+)	+	+	+	+*	-	O		
					*	*	-	O	(+)	(+)	(+)
					-	-	O	+			

* note: +- imago; (+)-imago inactive; -- larva; *- eggs; O- pupa.

The small view of the territory of the region. One of the factors determining the low natural abundance - finding the kind of on the border of its range in Russia. Main Caucasian ridge - an insurmountable barrier between the North Caucasian and Transcaucasian populations [4].

**Fig. 1. *Dermestes erichsoni* – imago.**

REFERENCES

- [1] R.D. Zhantiev, Carpet beetles fauna of the USSR. M.: MGU, **1976**, 186 (in Russian).
- [2] O.L. Kryzhanovsky, Family Dermestidae // Insects and mites - pests of agricultural crops. T. 2. Zhestkokrylye. L. Science, **1974**, 60-67. (in Russian).
- [3] S.V. Pushkin, Dermestes erichsoni // Red Book Stavropol. Stavropol: Poligrafservis, **2002**, 53 (in Russian).
- [4] S.V. Pushkin, Biology Dermestes erichsoni (Gang., **1903**) (Coleoptera: Dermestidae) Northern Caucasus // Problems of biology and ecology of the North Caucasus. Stavropol: SKGTU, **2003**, 62-64. (in Russian).
- [5] S.V. Pushkin, Dermestes erichsoni // Red Data Book of the Krasnodar Krai Krasnodar, **2007**, 162-163 (in Russian).
- [6] S.V. Pushkin, Dermestes erichsoni // Red Data Book of the Republic of Adygea. 2 Parts. Maikop, **2012**, 265 (in Russian).
- [7] S.V. Pushkin, Dermestes erichsoni // Red Book Stavropol.- Stavropol: Poligrafservis, **2013**, 53 (in Russian).
- [8] G.G. Jacobson, Beetles Russia and Western Europe. SPb, **1905-1915**, 1190 (in Russian).
- [9] L. Ganglbauer, Die Kafer von Mitteleuropa. Vierter band, erste halfte. Fam. Dermestidae, **1903**, 1-48.